SUPERMICRO®

SC510 Chassis Series

SC510-200B

SC510L-200B

SC510T-200B

SC510-203B

SC510T-203B

USER'S MANUAL

1.0a

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Preface

About This Manual

This manual is written for professional system integrators and PC technicians. It provides information for the installation and use of the SC510 chassis. Installation and maintenance should be performed by experienced technicians only.

Supermicro's mini-sized SC510 1U chassis features a depth of only 11.3" with an advanced airflow and thermal design for client nodes, firewall applications, mail servers, Web servers and other server applications. The SC510 supports a wide range of single processor based Micro ATX 9.6" x 9.6" motherboards. The SC510T featuress dual 2.5" hot-swappable hard drive bays which permit easy upgrades and maintenance. The SC510 is a perfect solution for home and office servers, with system noise levels at a low 30 dB during normal operation.

This document lists compatible parts available when this document was published. Always refer to the our Web site for updates on supported parts and configurations.

Manual Organization

Chapter 1 Introduction

The first chapter provides an overview of the main components and features of the SC510 chassis. This chapter also includes contact information.

Chapter 2 System Safety

This section lists warnings, precautions, and system safety. It is recommended that you thoroughly familiarize yourself with this chassis safety precautions.

Chapter 3 Chassis Components

Refer here for general information on the chassis components including the fans, airflow shields, and other equipment.

Chapter 4 System Interface

This chapter provides information on the system interface. Refer here for the meanings of the LED indicators and the appropriate responses that you may need to take.

Chapter 5 Chassis Setup and Installation

Follow the procedures given in this chapter when installing, removing, or reconfiguring your chassis.

Chapter 6 Rack Installation

Refer to this chapter for detailed information on chassis rack installation. You should follow the procedures given in this chapter when installing, removing or reconfiguring your chassis into a rack environment.

Appendix A Chassis Hardware

Appendix B Power Supply Specifications

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Appendix A Cables, Screws,and other Accessories

Appendix B SC510 Power Supply Specifications

Chapter 1

Introduction

1-1 Overview

Supermicro's SC510 chassis features a unique and highly-optimized design. The chassis is equipped with a high-efficiency 80%+ low-noise power supply.

1-2 Shipping List

Part Numbers

Please visit the following link for the latest shiping lists and part numbers for your particular chassis model http://www.supermicro.com/

SC510-200B Chassis				
Model	**CPU**	**HDD**	**I/O Slots**	**Power Supply**
SC510-200B	UP	1x fixed 3.5" hard drive or up to four fixed 2.5" hard drives	1x FH (optional)	200W (High-efficiency)
SC510-203B	UP	1x fixed 3.5" hard drive or up to four fixed 2.5" hard drives	1x FH (optional)	200W (Gold Level)
SC510L-200B	UP	1x fixed 3.5" hard drive or up to four fixed 2.5" hard drives	1x FH (optional)	200W
SC510T-200B	UP	2x 2.5" hard drives	1x LP	200W (high-efficiency)
SC510T-203B	UP	2x 2.5" hard drives	1x LP	200W (Gold Level)

Legend:
UP: Single processor
FH: Full-height
LP: Low-profile

1-3 Where to get Replacement Components

Though not frequently, you may need replacement parts for your system. To ensure the highest level of professional service and technical support, we strongly recommend purchasing exclusively from our Supermicro Authorized Distributors/ System Integrators/Resellers. A list of Supermicro Authorized Distributors/System Integrators/Reseller can be found at: http://www.supermicro.com. Click the Where to Buy link.

Contacting Supermicro

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Web Site:	www.supermicro.com.tw
Technical Support:	
Email:	support@supermicro.com.tw
Tel:	+886-(2) 8226-5990

Notes

Chapter 2

System Safety

2-1 Overview

This chapter provides a quick setup checklist to get your chassis up and running. Following the steps in order given should enable you to have your chassis set up and operational within a minimal amount of time. This quick setup assumes that you are an experienced technician, famailiar with common concepts and terminology.

2-2 Warnings and Precautions

You should inspect the box the chassis was shipped in and note if it was damaged in any way. If the chassis itself shows damage, file a damage claim with carrier who delivered your system.

Decide on a suitable location for the rack unit that will hold that chassis. It should be situated in a clean, dust-free area that is well venilated. Avoid areas where heat, electrical noise and eletromagnetic fields are generated.

You will also need it placed near at least one grounded power outlet. When configured, the SC510 chassis includes one power supply.

2-3 Preparing for Setup

The SC510 chassis bolts directly to a rack and includes the mounting screws you will need to install the systems into the rack. Please read this manual in its entirety before you begin the installation procedure.

2-4 Electrical Safety Precautions

Basic electrical safety precautions should be followed to protect yourself from harm and the SC510 from damage:

- Be aware of the locations of the power on/off switch on the chassis as well as the room's emergency power-off switch, disconnection switch or electrical outlet. If an electrical accident occurs, you can then quickly remove power from the system.

- Do not work alone when working with high voltage components.

- Power should always be disconnected from the system when removing or installing main system components, such as the serverboard, memory modules and the DVD-ROM (not necessary for hot swappable drives). When disconnecting power, you should first power down the system with the operating system and then unplug the power cords from all the power supply modules in the system.

- When working around exposed electrical circuits, another person who is familiar with the power-off controls should be nearby to switch off the power if necessary.

- Use only one hand when working with powered-on electrical equipment. This is to avoid making a complete circuit, which will cause electrical shock. Use extreme caution when using metal tools, which can easily damage any electrical components or circuit boards they come into contact with.

- Do not use mats designed to decrease electrostatic discharge as protection from electrical shock. Instead, use rubber mats that have been specifically designed as electrical insulators.

- The power supply power cord must include a grounding plug and must be plugged into grounded electrical outlets.

- Serverboard battery: CAUTION - There is a danger of explosion if the onboard battery is installed upside down, which will reverse its polarities This battery must be replaced only with the same or an equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

- DVD-ROM laser: CAUTION - this server may have come equipped with a DVD-ROM drive. To prevent direct exposure to the laser beam and hazardous

radiation exposure, do not open the enclosure or use the unit in any unconventional way.

2-5 General Safety Precautions

- Keep the area around the chassis clean and free of clutter.
- Place the chassis top cover and any system components that have been removed away from the system or on a table so that they won't accidentally be stepped on.
- While working on the system, do not wear loose clothing such as neckties and unbuttoned shirt sleeves, which can come into contact with electrical circuits or be pulled into a cooling fan.
- Remove any jewelry or metal objects from your body, which are excellent metal conductors that can create short circuits and harm you if they come into contact with printed circuit boards or areas where power is present.
- After accessing the inside of the system, close the system back up and secure it to the rack unit with the retention screws after ensuring that all connections have been made.

2-6 System Safety

Electrostatic discharge (ESD) is generated by two objects with different electrical charges coming into contact with each other. An electrical discharge is created to neutralize this difference, which can damage electronic components and printed circuit boards. The following measures are generally sufficient to neutralize this difference before contact is made to protect your equipment from ESD:

- Do not use mats designed to decrease electrostatic discharge as protection from electrical shock. Instead, use rubber mats that have been specifically designed as electrical insulators.
- Use a grounded wrist strap designed to prevent static discharge.
- Keep all components and printed circuit boards (PCBs) in their antistatic bags until ready for use.
- Touch a grounded metal object before removing any board from its antistatic bag.

- Do not let components or PCBs come into contact with your clothing, which may retain a charge even if you are wearing a wrist strap.
- Handle a board by its edges only; do not touch its components, peripheral chips, memory modules or contacts.
- When handling chips or modules, avoid touching their pins.
- Put the serverboard and peripherals back into their antistatic bags when not in use.
- For grounding purposes, make sure your computer chassis provides excellent conductivity between the power supply, the case, the mounting fasteners and the serverboard.

Chapter 3

Chassis Components

3-1 Overview

This chapter describes the most common components included with your chassis. Some components listed may not be included or compatible with your particular chassis model. For more information, see the installation instructions detailed later in this manual.

3-2 Components

Chassis

The SC510 chassis may include one of the following options:

SC510(L)-200B:

- One fixed 3.5" hard drive.
- Up to four fixed 2.5" hard drives.
- One full-height, half-length, expansion card

SC510T-200B:

- Two hot-swappable 2.5" hard drives.
- One low-profile expansion card.

For the latest shipping lists, visit our Web site at: http://www.supermicro.com.

This chassis supports two system cooling fans in the SC510(L) models and three system cooling fans in the SC510T. All models have one power supply and come in black.

Fans

The SC510 chassis features two (three for SC510T) system fans. System fans for the SC510 chassis are powered from the serverboard. These fans are 1U high and are powered by 3-pin or 4-pin connectors.

Mounting to a Rack (optional)

The SC510 can be placed in a rack for secure storage and use. To setup your rack, follow the step-by-step instructions included in this manual.

Power Supply

Each SC510 chassis includes a low-noise power supply with thermal control fan, rated at 200 Watts. In the unlikely event your power supply fails, replacement is simple and can be accomplished with a Phillips head screwdriver.

Air Shroud

Air shrouds are shields, usually plastic, that funnel air directly to where it is needed. Always use the air shroud included with your chassis.

3-3 Where to get Replacement Components

Though not frequently, you may need replacement parts for your system. To ensure the highest level of professional service and technical support, we strongly recommend purchasing exclusively from our Supermicro Authorized Distributors/System Integrators/Resellers. A list of Supermicro Authorized Distributors/System Integrators/Resellers can be found at: http://www.supermicro.com. Click the Where to Buy link.

Chapter 4

System Interface

4-1 Overview

There are several LEDs on the control panel and on the drive carriers that provide system and component status. This chapter explains the meanings of all LED indicators and the appropriate responses that need to be taken.

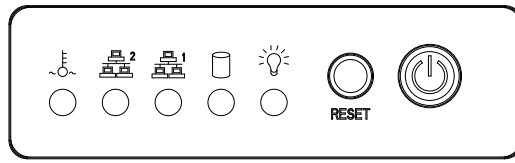
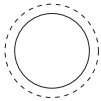


Figure 4-1. Control Panel Buttons and LEDs

4-2 Control Panel Buttons

The SC510 chassis includes two or three push-buttons located on the front panel: a reset button and a power on/off button



- Reset: The reset button is used to reboot the system.

- Power: The main power switch is used to apply or remove power from the power supply to the server system. Turning off system power with this button removes the main power but keeps standby power supplied to the system. Therefore, you must unplug system before servicing.

4-3 Control Panel LEDs

The control panel located on the front of the SC510 chassis has up to five LEDs. These LEDs provide critical information related to different parts of the system. This section explains what each LED indicates when illuminated and any action that may be required.

- Overheat/Fan Fail: When this LED flashes it indicates a fan failure. When continuously on (not flashing) it indicates an overheat condition, which may be caused by cables obstructing the airflow in the system or the ambient room temperature being too warm.

- NIC2: Indicates network activity on GLAN2 when flashing.

- NIC1: Indicates network activity on GLAN1 when flashing.

- HDD: Indicates IDE channel activity. SAS/SATA drive and/or DVD-ROM drive activity when flashing.

- Power: Indicates power is being supplied to the system's power supply units. This LED should normally be illuminated when the system is operating.

4-4 Drive Carrier LEDs

Your chassis uses SAS/SATA drives.

SAS/SATA Drives

Each SAS/SATA drive carrier has two LEDs.

- Green: Each Serial ATA drive carrier has a green LED. When illuminated, this green LED (on the front of the SATA drive carrier) indicates drive activity. A connection to the SATA backplane enables this LED to blink on and off when that particular drive is being accessed.

- Red: The red LED to indicate an SAS/SATA drive failure. If one of the SAS/SATA drives fail, you should be notified by your system management software.

4-5 Power Supply LEDs and Overheat Indicators

- Solid Green: When illuminated, the green LED indicates that the power supply is on.
- Solid Amber: When illuminated, the amber LED indicates the power supply is plugged in and turned off, or the system is off but in an abnormal state.
- Blinking Amber: When blinking, this system power supply temperature has reached 63C. The system will automatically power-down when the power supply temperature reaches 70C and restarts when the power supply temperature goes below 60C.

All Other Power Supplies

- Solid Green: When illuminated, this green LED indicates that the power supply is on.
- Solid Amber: When illuminated, the amber LED indicates the power supply is plugged in and turned off, or the system is off but in an abnormal state.

All Other Power Supply LEDs	
State	**Indication**
Solid Green	System is on.
Solid Amber	System is off and plugged in.

4-6 Overheating

The section lists actions that should be taken in the unlikely event the server overheats.

Overheat Temperature Setting

Some backplanes allow the overheat temperature to be set at 45, 50, or 55 by changing a jumper setting. For more information, download the backplane user manual at www.supermicro.com. To access the manuals on the Website, click support, and then click the manuals link.

Overheating Condition

If the Server Overheats, do the Following:

1. Use the LEDs to determine the nature of the overheating condition.
2. Confirm that the chassis covers are installed properly.
3. Check the routing of the cables and make sure all fans are present and operating normally.
4. Verify that the heatsinks are installed properly.

Chapter 5

Chassis Setup and Maintenance

5-1 Overview

This chapter covers the steps required to install components and perform maintenance on the chassis. The only tool you will need to install components and perform maintenance is a Phillips screwdriver. Print this page to use as a reference while setting up your chassis.

Review the warnings and precautions listed in the manual before setting up or servicing this chassis. These include information in Chapter 2: System Safety and the warning/precautions listed in the setup instructions.

5-2 Removing the Chassis Cover

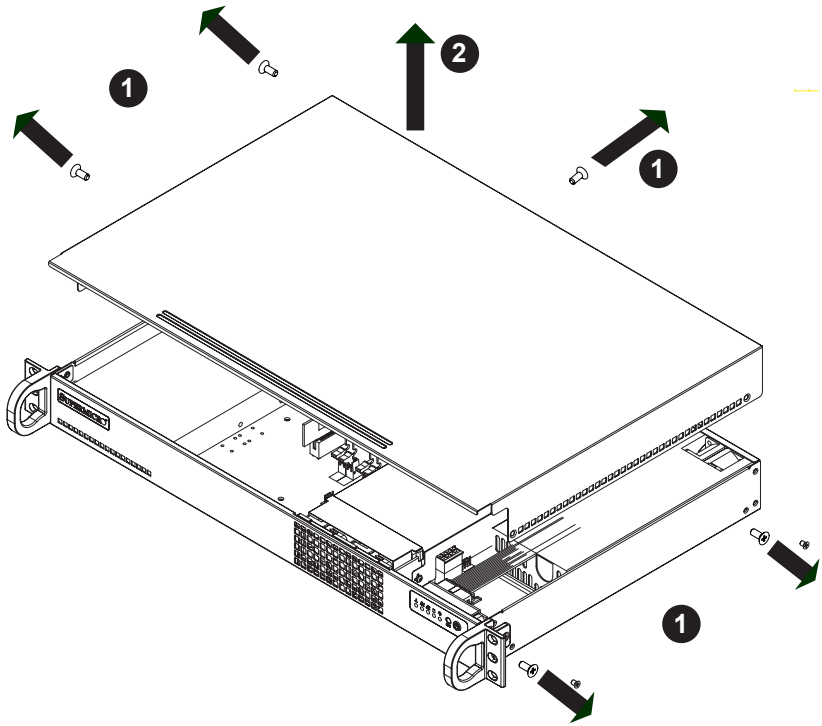


Figure 5-1: Removing the Chassis Cover

1. Remove the five screws that hold the chassis cover in place.There are two screws on each side of the chassis, and one screw on the back.

2. Once the screws have been removed, lift the cover upward to remove it from the chassis.

Warning: Except for short periods of time, do NOT operate the server without the cover in place. The chassis cover must be in place to allow proper airflow and prevent overheating.

6-3 Installing the Hard Drives

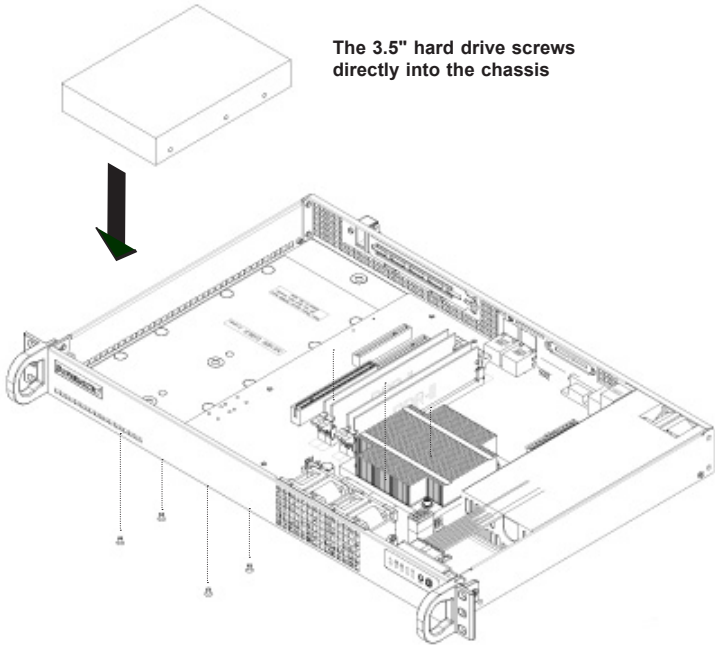


Figure 5-2: Installing the 3.5" Hard Drive

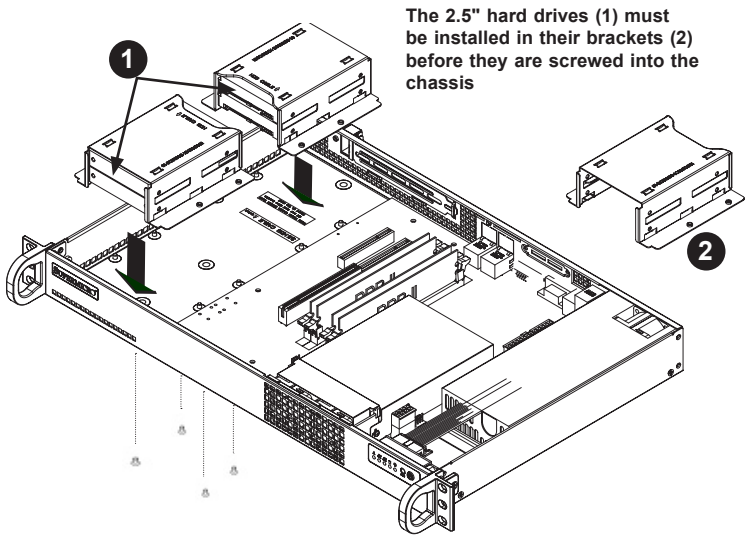


Figure 5-3: Installing the 2.5" Hard Drives

5-4 Installing the Motherboard

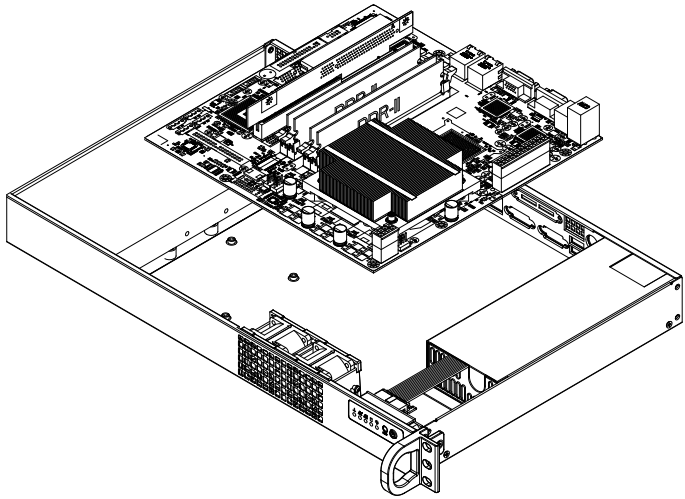


Figure 5-4: Chassis Standoffs

Permanent and Optional Standoffs

Standoffs prevent short circuits by securing space between the motherboard and the chassis surface. The SC510 chassis includes permanent standoffs in locations used by most motherboards. These standoffs accept the rounded Phillips head screws included in the SC510 accessories packaging.

When installing the motherboard, use the permanent and optional standoffs included in the chassis accessory box. To use an optional standoff, you must place the hexagonal screw through the bottom of the chassis and secure the screw with the hexagon nut (rounded side up).

Installing the Motherboard

1. Review the documentation that came with your motherboard. Become familiar with component placement, requirements, precautions, and cable connections.

2. Open the chassis cover.

3. Compare the mounting holes in the chassis to those in the motherboard. Add or remove standoffs as needed.

   A. Place a hexagonal standoff screw through the bottom the chassis.
   B. Secure the screw with the hexagon nut (rounded side up).

4. Lay the motherboard on the chassis aligning the permanent and optional standoffs

5. Secure the motherboard to the chassis using the rounded, Phillips head screws.

6. Secure the CPU(s), heatsinks, and other components to the motherboard as described in the motherboard documentation.

7. Connect the cables between the motherboard, backplane, chassis, front panel, and power supply, as needed. Also, the fans may be temporarily removed to allow access to the backplane ports.

Expansion Card/Expansion Slot Setup

SC510 chassis includes an I/O slot for the optional expansion card. A full-height, half-length PCI expansion card is supported. A riser card is required in order to adapt the expansion card to the 1U chassis. For further information on expansion cards and risers cards, refer to the Supermicro website at www.supermicro.com

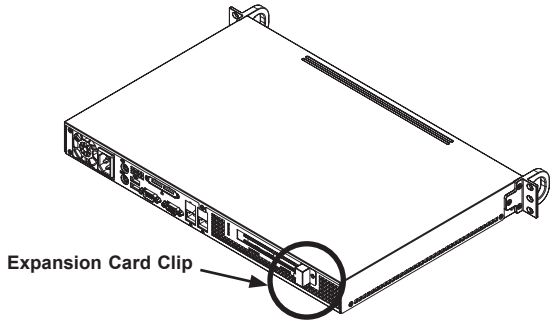


Figure 5-5: Locate the Expansion Card Clip

1. Locate the expansion card clip on the back of the chassis
2. Remove the screws holding the expansion card clip and the dummy bracket which covers the openings in the back of the chassis.
3. Remove the expansion card clip and the dummy plate from the chassis.
4. Outside of the chassis, put the expansion card and the riser card together by Inserting the expansion card into the riser card.

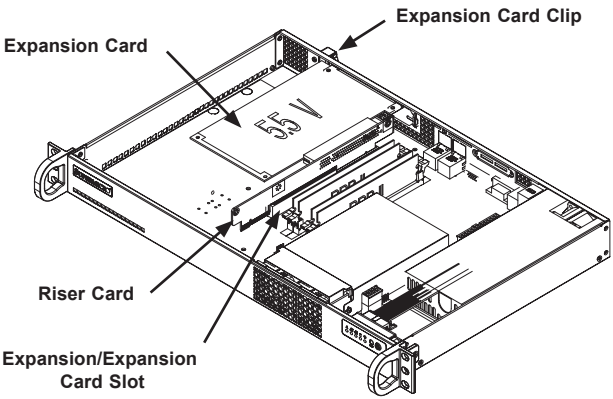


Figure 5-6: Install the Expansion Card and Riser Card

5. Insert the assembled expansion card and riser card into the expansion slot inside the chassis, carefully aligning the plate of the expansion card with the openings in the back of the chassis.

6. Replace the expansion card clip and screw it onto the chassis to hold the expansion card in place.

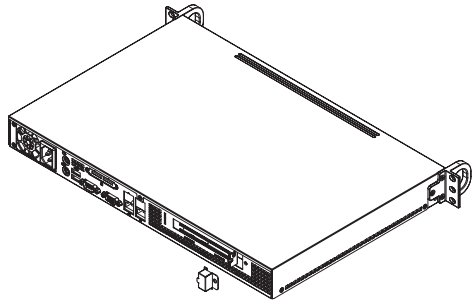


Figure 5-7: Replace the Expansion Card Clip

Note that if the length of the expansion card is less than 125 mm, the user may choose to install both the expansion card and a 3.5" hard drive.

5-5 Replacing the Heatsink

The SC510 chassis includes a heatsink, which conducts heat away from the motherboard.

1. Unplug all power leading to the chassis.
2. Disconnect the wiring to the motherboard.
3. Remove the screws securing the motherboard to the chassis and lift it up and out of the chassis.
4. Remove the four mounting screws which attach the heatsink to the motherboard and set them aside for later use.
5. Carefully lift the heatsink from the motherboard.
6. Align the holes of the replacement heatsink with the mounting thru holes in the motherboard
7. Using the screws which were set aside previously, attach the replacement heatsink to the motherboard.
8. Reinstall the motherboard using the directions in section 5-4.

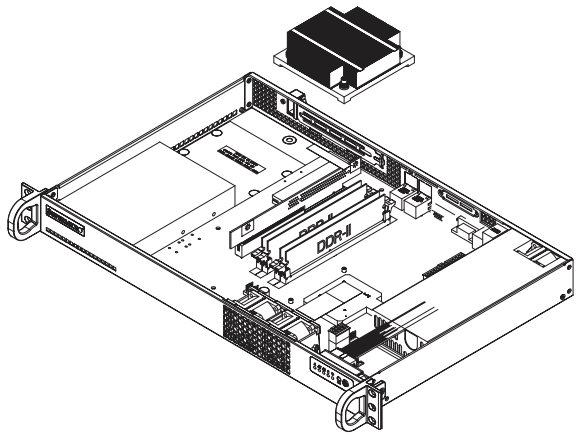


Figure 5-8: Installing the Heatsink

5-6 Installing the Air Shroud

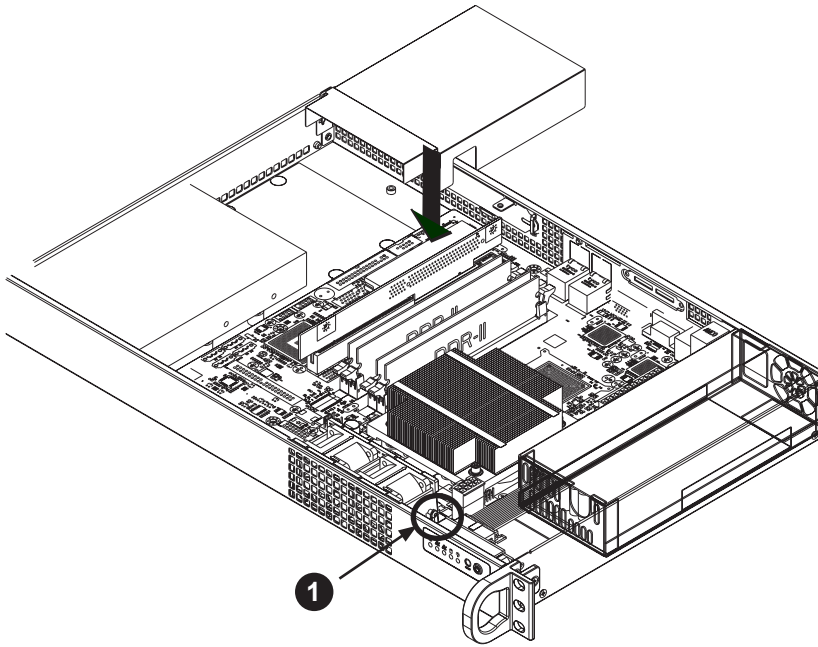


Figure 5-9: Air Shroud for SC510 Chassis

Air shrouds concentrate airflow to maximize fan efficiency. The SC510 chassis air shroud does not require screws to set it up.

Place the air shroud in the chassis. The air shroud fits behind the fan closest to the power supply.

Use the clip on the fan housing to hold the air shroud in place. (See item 1 above)

Checking the Server's Air Flow

1. Make sure there are no objects to obstruct airflow in and out of the server.
2. Use only recommended server parts.
3. Make sure no wires or foreign objects obstruct air flow through the chassis. Pull all excess cabling out of the airflow path, or use shorter cables.
4. The control panel LEDs inform you of system status. See “Chapter 3: System Interface” for details on the LEDs and the control panel buttons.

In most cases, the chassis power supply and fan are pre-installed. If you need to install fans, continue to the System Fans section of this manual. If the chassis will be installed into a rack, continue to the next chapter for rack installation instructions.

5-7 System Fans

System Fans for the SC510-200B/203B and SC510L-200B

Two heavy-duty fans within a single fan housing provide cooling for the chassis. These fans circulate air through the chassis as a means of lowering the chassis internal temperature.

1. If necessary, open the chassis while the power is running to determine which fan has failed (Never run the server for an extended period of time with the chassis open).

2. Turn off the power to the system and unplug the system from the outlet.

3. Remove the failed fan's power cord from the serverboard.

4. Remove the fan housing from the chassis by removing the two screws which attach the housing to the chassis. These screws are located in the mounting thru holes on either side of the fan housing. (See figure 5-10). Set these screws aside for later use.

5. Disconnect the fan wiring from the connectors and carefully lift the fan housing out of the chassis.

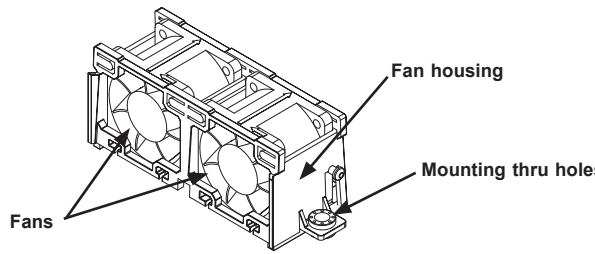


Figure 5-10: System Fans

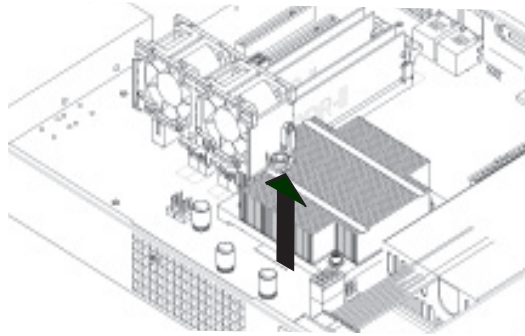


Figure 5-11: Removing Fan Housing from Chassis

6. To remove the fans from the fan housing, gently push **upwards** on the fan from the **underside** of the fan housing. Gently ease the fan out of the top of the fan housing

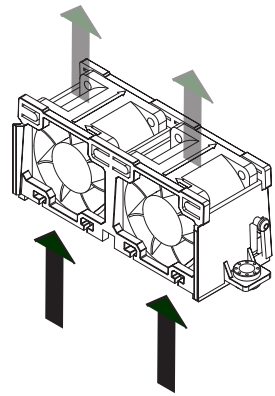


Figure 5-12: Removing Fans from Fan Housing

7. Slide the replacement fan **upwards through the bottom of the fan housing**.

8. Reconnect the fan wiring and replace the fan housing in the chassis using the mounting screws previously set aside.

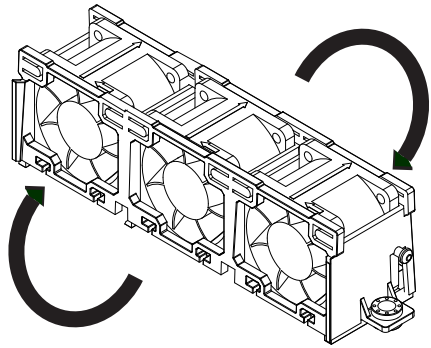


Figure 5-13: SC510(T)-203B Only, Moving Fans for Optimal Cooling

The SC510(T)-203B Model System Fans

The SC510(T)-203B supports up to three system fans to provide optimal cooling for different motherboard designs. Users may move either of the two fans which are included with the SC510(T)-203B to the location where cooling is most beneficial to the system. Users of the SC510(T)-203B also have the option of purchasing a third system fan if additional cooling is required.

5-8 Power Supply

The SC510 chassis comes equipped with a 200 Watt power supply. This power supply is auto-switching capable. This enables it to automatically sense and operate at a 100v to 240v input voltage.

The SC510 chassis has one power supply. In the unlikely event that the power supply unit fails, the system will shut down and you will need to change the power supply unit.

New units can be ordered directly from Supermicro (see contact information in the Preface).

Replacing the Power Supply

1. Unplug all power leading to the chassis.

2. Disconnect all wiring from the power supply.

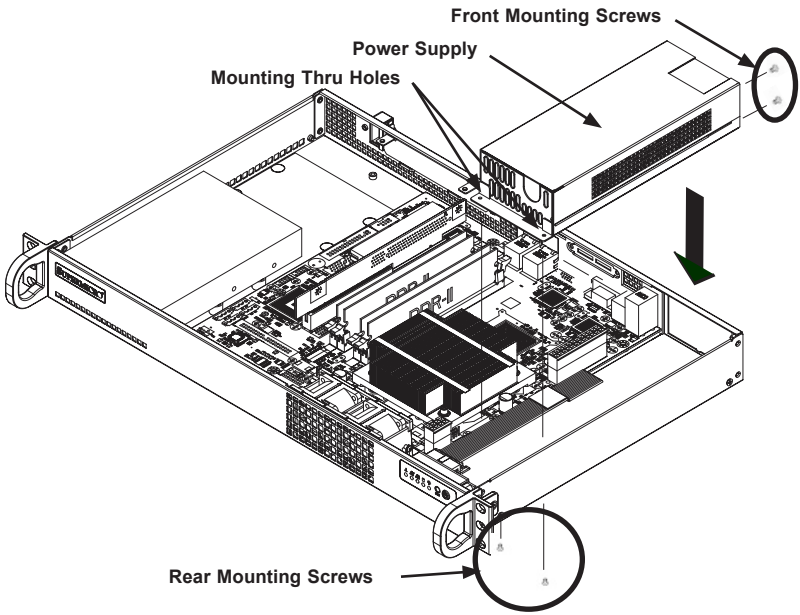


Figure 5-14: Installing the Power Supply

3. Remove the four screws which hold the power supply in the chassis. The two front mounting screws are located on the front of the power supply. The two rear mounting screws are accessed on the underside of the chassis and extend upwards through the mounting thru holes, to hold the power supply in place. Set the screws aside for later use.

4. Remove the power supply from the chassis.

5. Align the mounting thru holes on the power supply with the mounting holes in the chassis and reattach the power supply to the chassis using the four screws which were previously set aside

6. Connect the chassis wiring to the power supply.

Notes

Chapter 6

Rack Installation

6-1 Overview

This chapter provides instructions for installing the chassis into a rack. Following these steps in the order given should enable you to have the system installed in a minimal amount of time.

6-2 Unpacking the System

You should inspect the box the chassis was shipped in, and note if it was damaged in any way. If the chassis itself shows damage, you should file a damage claim with the carrier who delivered it.

Decide on a suitable location for the rack unit that will hold your chassis. It should be situated in a clean, dust-free area that is well ventilated. Avoid areas where heat, electrical noise and electromagnetic fields are generated. Place it near a grounded power outlet. Be sure to read the Rack and Server Precautions in the next section.

6-3 Preparing for Setup

The box your chassis was shipped in should include four mounting screws, which you will need if you intend to install the system into a rack.Read this section in its entirety before you begin the installation procedure outlined in the sections that follow.

Choosing a Setup Location

- Leave enough clearance in front of the rack to enable you to open the front door completely (~25 inches).
- Leave approximately 30 inches of clearance in the back of the rack to allow for sufficient airflow and ease in servicing.
- This product is for installation only in a Restricted Access Location (dedicated equipment rooms, service closets and similar environments).

Warnings and Precautions!

Rack Precautions

- Ensure that the leveling jacks on the bottom of the rack are fully extended to the floor with the full weight of the rack resting on them.
- In single rack installation, stabilizers should be attached to the rack.
- In multiple rack installations, the racks should be coupled together.
- Always make sure the rack is stable before extending a component from the rack.
- You should extend only one component at a time. Extending two or more simultaneously may cause the rack to become unstable.

General Server Precautions

- Review the electrical and general safety precautions that came with the components you are adding to your chassis.
- Determine the placement of each component in the rack.
- Install the heaviest server components on the bottom of the rack first, and then work up.
- Use a regulating, uninterruptible power supply (UPS) to protect the server from power surges, voltage spikes and to keep your system operating in case of a power failure.
- Allow the hard drives and power supply modules to cool before touching them.
- Always keep the rack's front door, all panels and all components on the servers closed when not servicing, in order to maintain proper cooling.

Rack Mounting Considerations

Ambient Operating Temperature

If installed in a closed or multi-unit rack assembly, the ambient operating temperature of the rack environment may be greater than the ambient temperature of the room. Therefore, consideration should be given to installing the equipment in an environment compatible with the manufacturer's maximum rated ambient temperature (TMRA).

Reduced Airflow

Equipment should be mounted into a rack so that the amount of airflow required for safe operation is not compromised.

Mechanical Loading

Equipment should be mounted into a rack so that a hazardous condition does not arise due to uneven mechanical loading.

Circuit Overloading

Consideration should be given to the connection of the equipment to the power supply circuitry and the effect that any possible overloading of circuits might have on overcurrent protection and power supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

Reliable Ground

A reliable ground must be maintained at all times. To ensure this, the rack itself should be grounded. Particular attention should be given to power supply connections other than the direct connections to the branch circuit (for example, the use of power strips, and other devices).

6-4 Rack Mounting Instructions

This section provides information on installing the SC510 chassis into a rack unit There are a variety of rack units on the market, which may mean the assembly procedure will differ slightly. You should also refer to the installation instructions that came with the rack unit you are using.

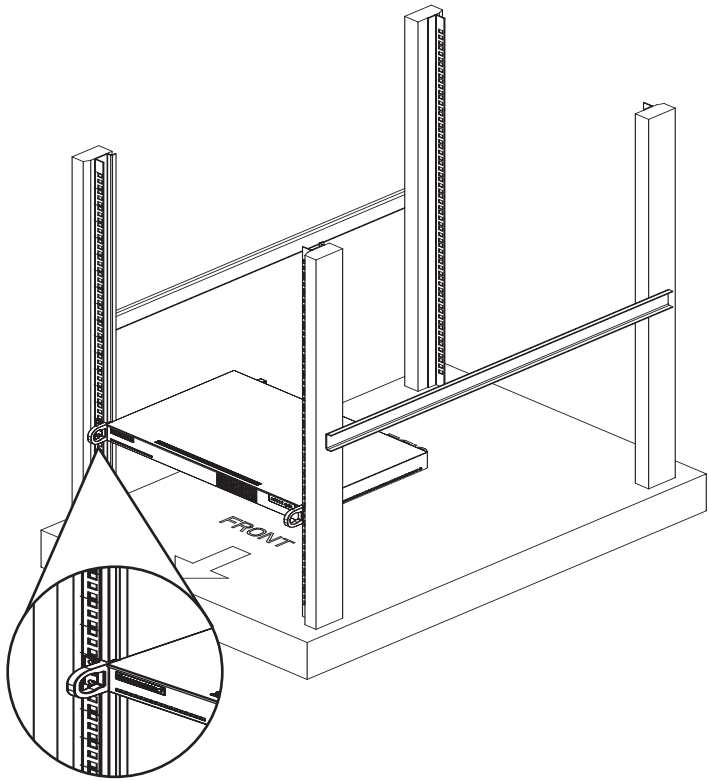


Figure 6-1: Installing the Chassis into a Rack

Installing the Chassis into a Rack:

1. Confirm that chassis includes the four mounting screws required to mount the chassis into a rack

2. Align the thru holes of the chassis with the thru holes of the rack.

3. Insert the mounting screws into the thru holes in the front of the chassis and through the thru holes in the rack

Appendix A

Cables, Screws, and other Accessories

A-1 Overview

This appendix lists supported cables for your chassis system. It only includes the most commonly used components and configurations. For more compatible cables, refer to the manufacturer of the motherboard you are using and our Web site at: www.supermicro.com.

A-2 Cables Included with SC510-200B Chassis

SC510-200B			
Part #	**Type**	**Length**	**Description**
CBL-0236L	Ribbon	13"	16-pin to 16-pin ribbon cable for control panel
---	Cable	6'	Regional power cord

A-3 Optional Accessories

The following accessories are compatible with the SC510-200B chassis.

Hard Drive Carrier (Tray):

MCP-220-00044-0N 2.5" hard drive carrier. One carrier can hold up to two 2.5" hard drives. The SC510-200B can hold up to two 2.5" hard drive carriers, for a total of four hard drives.

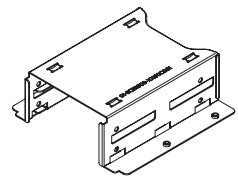


Figure A-1: Hard Driver Carrier

Extending Power Cables

Although Super Micro chassis are designed with to be efficient and cost-effective, some compatible motherboards have power connectors located in different areas.

To use these motherboards you may have to extend the power cables to the mother boards. To do this, use the following chart as a guide.

Power Cable Extenders		
Number of Pins	Cable Part #	Length
24-pin	CBL-0042	7.9"(20 cm)
20-pin	CBL-0059	7.9"(20 cm)
8-pin	CBL-0062	7.9"(20 cm)
4-pin	CBL-0060	7.9"(20 cm)

Front Panel to the Motherboard

The SC510 chassis includes a cable to connect the chassis front panel to the motherboard. If your motherboard uses a different connector, use the following list to find a compatible cable.

Front Panel to Motherboard Cable (Ribbon Cable)		
Number of Pins (Front Panel)	Number of Pins (Motherboard	Cable Part #
16-pin	16-pin	CBL-0049
16-pin	20-pin	CBL-0048
20-pin	20-pin	CBL-0047
16-pin	varies*	CBL-0068
20-pin	varies*	CBL-0067

* Split cables: Use these cable if your motherboard requires several different connections from the front panel.

A-4 Chassis Screws

The accessory box includes all the screws needed to setup your chassis. This section lists and describes the most common screws used. Your chassis may not require all the parts listed.

M/B

Pan head
6-32 x 5 mm
[0.197]

HARD DRIVE

Flat head
6-32 x 5 mm
[0.197]

DVD-ROM, CD-ROM, and FLOPPY DRIVE

Pan head
6-32 x 5 mm
[0.197]

Flat head
6-32 x 5 mm
[0.197]

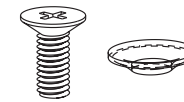
Round head
M3 x 5 mm
[0.197]

Round head
M2.6 x 5 mm
[0.197]

RAIL

Flat head
M4 x 4 mm
[0.157]

Round head
M4 x 4 mm
[0.157]

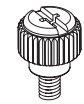


Flat head
M5 x 12 mm[0.472]
Washer for M5

M/B STANDOFFS

M/B standoff
6-32 to 6-32

M/B (CPU)
standoff
M5 to 6-32



Thumb screw
6-32 x 5 mm
[0.197]

1/U M/B standoff
6-32 x 5 mm
[0.197]

Notes

Appendix B

SC510 Power Supply Specifications

This appendix lists power supply specifications for your chassis system.

	200W (SC510-203B, SC510T-203B)
MFR Part #	PWS-203-1H
Rated AC Voltage	100 - 240V 50 - 60Hz 4-2Amp
+5V standby	2 Amp
+12V	16 Amp
+5V	8 Amp
+3.3V	8 Amp
-12V	0.5 Amp

	200W (SC510L-200B)
MFR Part #	PWS-202-1H
Rated AC Voltage	100 - 240V 50 - 60Hz 3-1.5 Amp Max
+5V standby	2.0 Amp
+12V	15.0 Amp
+5V	16.0 Amp
+3.3V	17.0 Amp
-12V	0.8 Amp

	200W (SC510-200B, SC510T-200B)
MFR Part #	PWS-201-1H
Rated AC Voltage	100 - 240V 50-60Hz 4-2 Amp Max
+5V standby	2.0 Amp
+12V	16.0 Amp
+5V	8.0 Amp
+3.3V	8.0 Amp
-12V	0.5 Amp

Notes

Disclaimer (cont.)

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